TWO NEW SPECIES OF FALSE SPIDER MITES (ACARINA: TENUIPALPIDAE) AND A NEW TETRANYCHID DISTRIBUTION RECORD FROM NEW YORK STATE[1]

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The phytophagous mites of New York have been taxonomically treated at least in part by Parrott et al. (1906); Hodgkiss (1928; 1930); and Reeves (1963). Various groups also have been included in studies by Baker and Pritchard (1953), and Pritchard and Baker (1958). Publications too numerous to mention have dealt with the bionomics and control of phytophagous mites in New York. The present paper is a contribution toward a knowledge of the false spider-mites in that State and in the United States.

In addition, we publish herewith a new distribution record for a spider-mite, *Beerella petiolaris* Thewke 1967 (Tetranychidae) from New York, previously known only from Missouri. A single female specimen was taken at Himrod, Yates Co., New York, Aug. 24, 1968 in leaf litter at the edge of Seneca Lake by S. E. Thewke. This is a great extension of the range of the genus *Beerella*, only one other species being known and that from Mexico (Beer & Lang, 1958; Thewke, 1967).

Family TENUIPALPIDAE

Genus *Brevipalpus* Donnadieu 1875

Brevipalpus edurensis NEW SPECIES

Female (Figs. 1, 2). Body broadest at suture between propodo-

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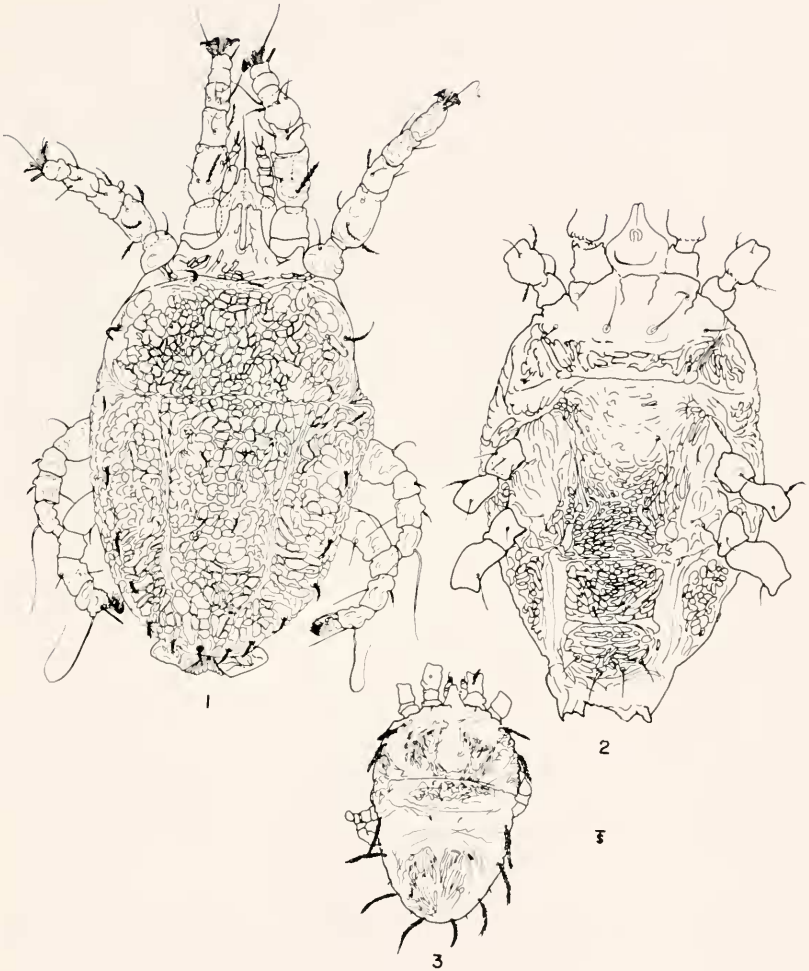

Fig. 1. *Brevipalpus edurensis* female, dorsal aspect. Fig. 2. *Brevipalpus edurensis* female, ventral aspect. Fig. 3. *Brevipalpus edurensis* nymph, dorsal aspect.

soma and hysterosoma. Rostrum reaching to distal ends of femora I; fourth segments of palpi each with two setae and a sensory peg; femora I with a lanceolate, strongly serrate, dorsal seta; genua I with a similar seta, lightly serrate. Tarsi I and II each with a single sensory rod. Claws strongly curved. Rostral shield with some reticulation.

Dorsal propodosomals lanceolate, serrate. Eyes present. One pair of short, serrate humerals present. Hysterosoma with six pairs of lanceolate, serrate dorsolaterals; hysterosomal pores present; dorsomedian ridge with some transversely coalescent areolae posteriorly. Dorsomedian groove on hysterosoma narrow, with a few indistinct reticular elements. Dorsal hysterosomals setiform, serrate. Entire metapodosomal venter evenly reticulate; anterior medioventral setae short; posterior medioventrals long, extending beyond the bases of the anterior pair. Genital and ventral plates reticulate. Average length of body 252μ, including rostrum 312μ; average width 177μ.

Nymph (Fig. 3). Dorsal setae on femora I broadly lanceolate, serrate. Idiosoma with second and third pairs of propodosomals, humerals, and first, second, fourth, and sixth pairs of dorsolateral hysterosomals, lanceolate, serrate. First pair of propodosomals, third and fifth pairs of dorsolateral hysterosomals very short, setiform, nude. Dorsocentrals minute. Integument as figured. Average length of body 215μ, including rostrum 237μ; average width 148μ.

Male (Figs. 4, 5). Body broadest at juncture of propodosoma and metapodosoma; rostrum reaching to middle of femora I. Palpi each with two setae and a sensory peg. Femora I with a dorsal, slightly serrate, seta. Tarsi I with one sensory rod; tarsi II with two sensory rods. Rostral shield striate. Dorsal propodosomals lanceolate, serrate. One pair of lanceolate, serrate humerals present. Metapodosoma and opisthosoma with lanceolate, serrate setae. Dorsum evenly reticulate. Metapodosomal venter reticulate. Posterior metapodosoma with ventral setae reaching beyond bases of anterior pair. Average length of body 205μ, including rostrum 246μ; average width 129μ.

Types. Holotype female, and allotype, on leaves of basswood, *Tilia americana* L. Host tree situated 100-200 meters from Catskill Creek, East Durham, Greene Co., New York, about one mile north of the junction of Carter Bridge Road with Route 145. The mites were collected on August 31, 1968 by S. E. Thewke. Paratypes: six females and five nymphs, same data as holotype; and three additional females, Himrod, Yates Co., New York from same host species but located at the edge of Lake Seneca, September 23, 1969, S. E. Thewke, collector. The holotype, allotype, and one nymphal paratype will be deposited in the collections of the U. S. National Museum, Washington, D. C.; paratypes in the University of Kansas collections, Lawrence, Kansas,

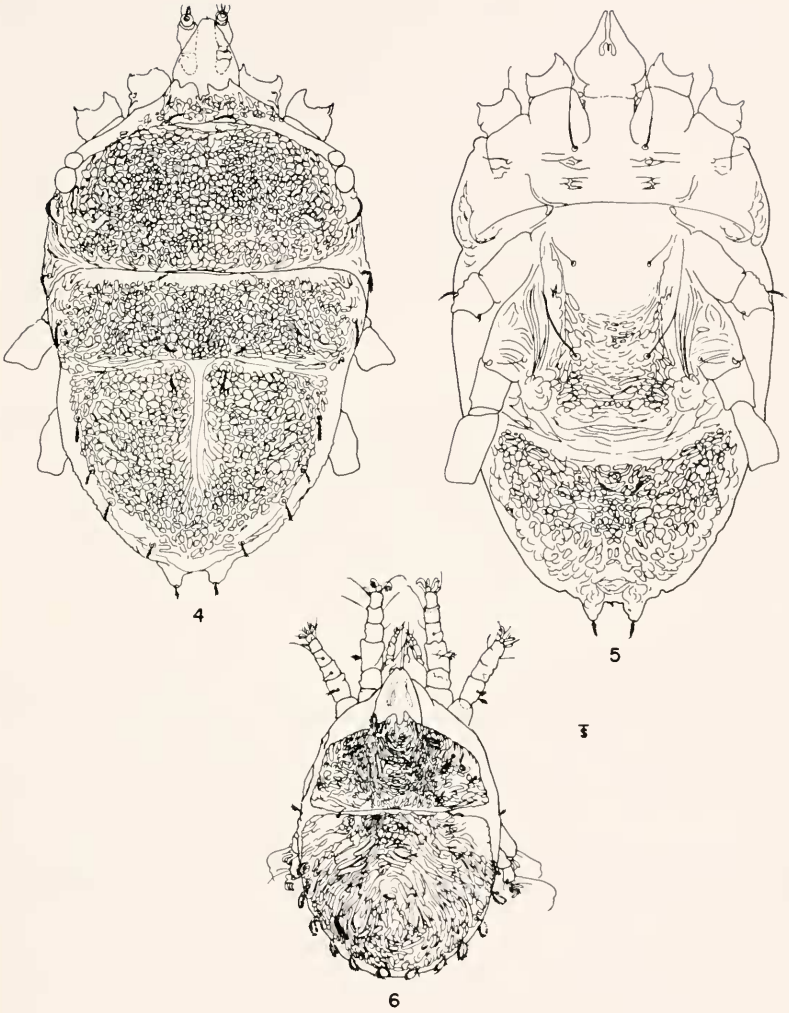

Fig 4. *Brevipalpus edurensis* male, dorsal aspect. Fig 5. *Brevipalus edurensis* male, ventral aspect. Fig. 6. *Pentamerismus ossianensis* female, dorsal aspect.

and in the Entomology Research Museum, University of Missouri, Columbia, Mo.

This species is morphologically most closely related to *B. docimas*

Pritchard and Baker 1958 (cf. also Thewke & Enns, 1970, p. 81) from which it may be distinguished by the following table:

Brevipalpus edurensis Thewke & Enns		*Brevipalpus docimas* P. & B.
Femora I	Dorsal seta stout, strongly serrate	Dorsal seta narrowly lanceolate, scarcely serrate
Rostral shield	Reticulate proximally, striate distally	Non-reticulate
Propodosomal reticulation	Irregular	Regular
Propodosomal pores	Absent	Present

The species name is derived from a contraction of the village name, East Durham, in which it was first found.

Genus *Pentamerismus* McGregor 1949

Pentamerismus ossianensis NEW SPECIES

Female (Fig. 6). Body broadly elliptical. Palpi each with a dorsal seta on second segment. Femora I with one spatulate, strongly serrate, dorsal seta, femora II similar, seta less spatuliform. Patellae I and II each with a single rod-like sensillum. Claws long, moderately hooked. Rostral shield broad, deeply emarginate distally. Propodosoma entirely reticulate dorsally; first and second pairs of anterior submedian and sublateral propodosomals spatulate, strongly serrate; one pair of setiform lateral propodosomals present. Hysterosoma dorsally with caudolaterally directed reticulations. Dorsocentrals short, setiform, three in number; two pairs of short, setiform dorsosublaterals, and six pairs of spatulate, finely serrate dorsolaterals present. Metapodosoma with both pairs of medioventrals long and slender. Genital and ventral plates with very light, more or less transverse, striae. Average length of body 249μ, including rostrum 287μ; greatest width 183μ.

Types. Holotype female taken on leaves of arborvitae (*Thuja* sp.), Ossian, Livingston Co. New York, Sept. 29, 1969, S. E. Thewke, collector. Paratypes: six females same data as holotype and six females, same location and host but taken April 15, 1970. No males are

known. The holotype and one paratype will be deposited in the collection of the U. S. National Museum; two paratypes will be deposited in the collection of the University of Kansas, Lawrence, and the remainder will be retained in the Entomology Research Museum, University of Missouri, Columbia.

Pentamerismus ossianensis may be easily separated from *P. coronatus* (Canestrini and Fanzago), a closely related species (cf. Baker and Pritchard, 1953), by its completely reticulate idiosoma which in *P. coronatus* is striate rather than reticulate.

The species is named in honor of the hamlet, Ossian, N. Y., in which it was first found.

Acknowledgments

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2.0121 Two new species of false spider mites (Acarina: Tenuipalpidae) and a new tetranychid distribution record from New York State.

Abstract.—Two false spider-mites (Acarina:Tenuipalpidae), *Brevipalpus edurensis* from leaves of basswood, (*Tilia americana* L.), and *Pentamerismus ossianensis* from foliage of arborvitae, (*Thuja* sp.), are named and described as new species from the Catskill and Finger Lakes regions, respectively, of New York. A spider-mite (Acarina:Tetranychidae), *Beerella petiolaris* Thewke 1967, is recorded for the first time for New York State.—Siegfried E. Thewke and Wilbur R. Enns, Department of Entomology, University of Missouri, Columbia, MO 65201.

Descriptors: Acarina; Tenuipalpidae; Tetranychidae; new species in New York.